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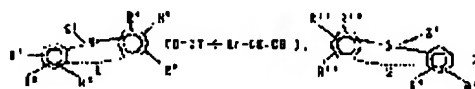
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(54) ORGANIC ELECTROLUMINESCENCE ELEMENT

(57)Abstract:

PURPOSE: To obtain an excellent luminescence efficiency by combining a plurality of members selected from electron donating styryl compds. having a vinylene group with each terminal bonded to an aromatic ring or an aromatic heterocyclic ring to incorporate functional layers having an identical function.

CONSTITUTION: An anode having a film thickness of 10 to 200nm is formed on a transparent substrate by vapor deposition of a dielectric material, such as SnO₂. Two or more electron donating styryl compds. represented by the formula I [wherein R₁ to R₁₂ represent H, a halogen, a 1-10C alkyl, a 1-10C alkoxy, a 6-18C aryloxy, or a styryl represented by the formula II (two adjacent styryls optionally combining with each other to form a five- or six-membered ring); Z₁, Z₂, and E represent H, a 1-10C alkyl or the like; Ar represents a 6-20C arylene, a 4-20C divalent arom. heterocyclic group or the like; each dotted line may serve to conduct linking to form a heterocyclic structure; and n is 0 to 2) are co-deposited to form a luminescence layer having a thickness of 5nm to 5μm, and another functional layer is laminated thereon. A cathode material, such as an Mg/Cu alloy, is then electrodeposited thereon to form a cathode having a film thickness of 50 to 200nm, thereby preparing an org. electroluminescence element.



II

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